



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

(Original Dated: July 3,
1997)

Office of the Administrator

MEMORANDUM

SUBJECT: Cumulative Risk Assessment Guidance-Phase I Planning and Scoping

TO: Assistant Administrators
General Counsel
Inspector General
Associate Administrators
Regional Administrators
Staff Office Directors

As you are aware, the processes that EPA and others follow to assess environmental risk are of great interest to environmental professionals and to the public, and growing attention is being given to the combined effects of multiple environmental stressors. Consistent with this, EPA and others are asking more questions about the wider and more complex issues that define a cumulative approach to risk assessment. Today, we are providing guidance for all EPA offices on cumulative risk assessment. This guidance directs each office to take into account cumulative risk issues in scoping and planning major risk assessments and to consider a broader scope that integrates multiple sources, effects, pathways, stressors and populations for cumulative risk analyses in all cases for which relevant data are available. This assures a more consistent and scientifically complete Agency-wide approach to cumulative risk assessments in order to better protect public health and the environment.

This approach provides a platform for significant advances in our scientific approach to assessing environmental risks. For most of our history, EPA has assessed risks and made environmental protection decisions based on individual contaminants—such as lead, chlordane, and DDT—with risk assessments for these chemicals often focused on one source, pathway or adverse effect. Today, better methods and data often allow us to describe and quantify the risks that Americans face from many sources of pollution, rather than by one pollutant at a time. We are increasingly able to assess not simply whether a population is at risk, but how that risk presents itself. In addition, we are better able in many cases to analyze risks by considering any unique impacts the risks may elicit due to the gender, ethnicity, geographic origin, or age of the affected populations. Where data are available, therefore, we may be able to determine more precisely whether environmental threats pose a greater risk to women, children, the elderly, and other specific populations, and whether a cumulative exposure to many contaminants, in combination, poses a greater risk to the public.

Of particular importance are the right-to-know implications of this guidance, which requires that we build opportunities for citizens and other stakeholders to understand our ongoing risk assessments, and to provide us with their comments. Our goal is to ensure that citizens and other stakeholders have an opportunity to help define the way in which an environmental or public health problem is assessed, to understand how the available data are used in the risk assessment, and to see how the data affect

decisions about risk management.

Some Regions and Programs within the Agency are already making significant efforts to use integrated or cumulative risk assessment techniques, and this guidance both reflects those practices and makes them consistent across the Agency. The scope of integrated risk assessments often involves coordination across many program offices and statutory mandates for risk analysis; for example, those called for under the new safe drinking water and food safety laws. Therefore, this guidance calls for ongoing communication among risk assessors, risk managers, economists, engineers, and other technical experts within the Agency.

While we can more consistently take into account many new factors in this approach to risk assessment, many other potentially important factors are more difficult to include in our analyses, particularly the social, economic, behavioral or psychological factors that also may contribute to adverse health effects. These include, among others, such factors as existing health conditions, anxiety, nutritional status, crime and congestion. Assessment of these factors is often hampered by a lack of data to establish plausible cause-and-effect relationships; difficulties in measuring exposure, incidence and susceptibilities related to these risks; and few methods for assessing or managing these risks. This guidance does not address these factors. We expect, nonetheless, that this guidance will be updated as our understanding and experience develop; and, the Agency is focusing its research to improve our ability to incorporate these broader concerns into our cumulative risk assessments as new data and methods are brought forward.

Please take the steps needed to ensure that all major risks assessments undertaken in your area embrace this cumulative approach, so that we can better advise all citizens about the environmental and public health risks they face, and improve our ability to protect the environment and public health for the nation.

/s/

Carol M. Browner, Administrator

/s/

Fred Hansen, Deputy Administrator

[Attachment](#)
